

Date: Tuesday, 08/07/2008 2:11:22 PM  
 User: Julie Lecocq

## Process Sheet

<b>Customer</b> :	CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> :	SKIDTUBE ASSEMBLY
<b>Job Number</b> :	40377		
<b>Estimate Number</b> :	10022		
<b>P.O. Number</b> :		<b>Part Number</b> :	D205634011
<b>This Issue</b> :	08/07/2008	<b>Drawing Number</b> :	N/A
<b>Prsht Rev.</b> :	NC	<b>Project Number</b> :	N/A
<b>First Issue</b> :	//	<b>Drawing Revision</b> :	N/A
<b>Previous Run</b> :	40376	<b>Material</b> :	
<b>Written By</b> :		<b>Due Date</b> :	30/07/2008
<b>Checked &amp; Approved By</b> :	JUD 08.7.08	<b>Qty:</b>	1 Um: Each
<b>Comment</b> :	Est Rev:P 02.08.28 Removed QC5 from Step 5 KJ		

## Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description :

1.0

DC

DOCUMENT CONTROL



8 08/08/12



Comment: DOCUMENT CONTROL

Photocopy bluefile &amp; type labels per PPP D205-634-011

CHG005 006 ECN 08.507

2.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

3.0

40377A

SKID TUBE ASSEMBLY



Comment: Sub-Component SKID TUBE ASSEMBLY

1 x D205-634-041 Batch

B40377A

AS 08/08/12 (X)

4.0

K10003

Saddle, D205-634-011



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty	Part Number	Description	Batch
1	K10003	Saddle Kit	39797

AS 08/08/12 (X)

5.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

8 08/08/12 (X)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 08/07/2008 2:11:23 PM  
User: Julie Lecocq

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKIDTUBE ASSEMBLY

Job Number: 40377

Part Number: D205634011

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D205-634-011

Location: *Rev K*

*AS 08/08/12*

7.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*08/08/12*  
*MF 08-08-12*

Job Completion



*BH0 377 A*

<b>DART</b>		TEL: 1-613-632-3336 FAX: 1-613-632-4443	
TRANSPORT CANADA APPROVAL # 09-89		CHG	CHG005
P/N	D205-634-011	STC	SH96-88
DESC.	Skidtube	STC	SR00563NY
LOT	B40377	STC	
MODEL	Bell 205/210/212/214/412	MADE IN CANADA	
US PATENT # 5735484 CANADA FOREIGN PATENTS PENDING			

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Date: Tuesday, 08/07/2008 2:11:22 PM  
 User: Julie Lecocq

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : SKIDTUBE ASSEMBLY  
 Job Number : 40377  
 Estimate Number : 10022  
 P.O. Number :  
 This Issue : 08/07/2008 S.O. No. :  
 Prsht Rev. : NC  
 First Issue : // Type : SKIDTUBES  
 Previous Run : 40376  
 Part Number : D205634011  
 Drawing Number : N/A  
 Project Number : N/A  
 Drawing Revision : N/A  
 Material :  
 Due Date : 30/07/2008 Qty: 1 Um: Each  
 Written By :  
 Checked & Approved By : JVO 08.7.08  
 Comment : Est Rev:P 02.08.28 Removed QC5 from Step 5 KJ

## Additional Product

REFERENCE ONLY

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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Comment: DOCUMENT CONTROL JVO 08.7.18  
 Photocopy bluefile & type labels per PPP D205-634-011 CHG005

2.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1  
 Pick Packing Kit

3.0	40377A	SKID TUBE ASSEMBLY
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Comment: Sub-Component SKID TUBE ASSEMBLY  
 1 x D205-634-041 Batch

4.0	K10003	Saddle, D205-634-011
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
 Pick:  

Qty	Part Number	Description	Batch
1	K10003	Saddle Kit	

5.0	QC4	INSPECT 100% KITS FOR COMPLETENESS
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Comment: INSPECT 100% KITS FOR COMPLETENESS

Date: Tuesday, 08/07/2008 2:11:48 PM  
 User: Julie Lecocq

## Process Sheet

<b>Customer</b> :	CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> :	SKID TUBE ASSEMBLY
<b>Job Number</b> :	40377A		
<b>Estimate Number</b> :	10023		
<b>P.O. Number</b> :		<b>Part Number</b> :	D205634041
<b>This Issue</b> :	08/07/2008	<b>Drawing Number</b> :	D2580 REV D
<b>Prsht Rev.</b> :	NC	<b>Project Number</b> :	N/A
<b>First Issue</b> :	/ /	<b>Drawing Revision</b> :	D
<b>Previous Run</b> :	40376A	<b>Material</b> :	
<b>Written By</b> :		<b>Due Date</b> :	30/07/2008
<b>Checked &amp; Approved By</b> :	JUL 08.7.08	<b>Qty:</b>	1 Um: Each
<b>Comment</b> :	Est Rev:N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30 KJ Est Rev: O 06.02.28 Added paperwork EC Est Rev:P 07-07-09 SS Wearplates & Gaskets JLM		

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
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1.0	DC	DOCUMENT CONTROL
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**Comment:** DOCUMENT CONTROL  
 Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG002

2.0	D25001190	Ext'n -I' Beam Tube 4"
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**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
 Pick:

Qty	Part Number	Description	Batch
1	D2500-1-190	Skid Tube Extrusion	B37544 M 8-7-9

3.0	D2596	Web, 205 Skidtube
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**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
 Pick:

Qty	Part Number	Description	Batch
1	D2596	205 Web	40322 SL 8-7-9

4.0	SKIDTUBES 1	SKIDTUBESS RESOURCE 1
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**Comment:** LANDING GEAR RESOURCE 1

- 1- Inspect mat'l D2500-1-190 for damage
- 2-Cut D2500-1-190 per Dwg D2580 if necessary Deburrr ends
- 3-Acid etch and Alodine tube per QSI 005 4.1

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 08/07/2008 2:11:48 PM  
User: Julie Lecocq

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 40377A

Part Number: D205634041

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

2T 08-07-09

6.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Drill pilot holes using drill jig DT 8149(Do not use cutting fluid)

2-Open holes to 0.500" as per Dwg D2580without cutting fluid

3-Countersink holes as per Dwg D2580without cutting fluid

4-Deburr and blow out all chips from inside of tube

5-Bond web in place per QSI 015. Allow 12 Hrs. cure time before cutting

Pick:

Qty Part Number Description Batch

A/R Sikaflex-291 107844

Sikaflex expire date: 8-11-1

Start Time: 4:05 Date: 8-7-9

Fin Time: 11:30 Date: 8-7-10

M 8-7-9  
SL 8-7-9

7.0

BENDING

BENDING MACHINE - SKIDTUBES



Comment: BENDING MACHINE

1-Bend as per program D2580.C on CNC Bender and Folio FT009

2-Cut tubes as per Dwg. D2580

8-7-10

8.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Deburr ends

2-Prepare tube for welding, remove alodine as required.

7 SL 8-7-10



W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

**NOTE:** Date & initial all entries

Date: Tuesday, 08/07/2008 2:11:48 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 40377A

Part Number: D205634041

Job Number:



Seq. #:

Machine Or Operation:

Description:

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

BE 8-7-11

10.0

D25763

Step (maching detail)



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty	Part Number	Description	Batch
1	D2576-3	Step	BE 8392

BE 8-7-11

11.0

D2579

Crossbolt Spacer



Comment: Qty.: 20.0000 Each(s)/Unit Total: 20.0000 Each(s)

Pick:

Qty	Part Number	Description	Batch
20	D2579	Spacers	30561

SL 8-7-10

20

12.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

2-Weld step D2576 as per Dwg. D2580 and QSI 004

A/R

Aluminum Rod

M108096

BE 8-7-11

3-Weld crossbolt spacers D2579 as per Dwg. D2580 and QSI 004.

For D2579 spacers, weld one side, pass 3/8" drill, weld other side, pass 3/8" drill

A/R

Aluminum Rod

M108096

BE 8-7-11

4-Grind welds as per Dwg D2580 Grind flush ridge made from bending

5-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64", adjust stopper not to hit web. Debur

6-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2580. Debur holes

7-Drill pilot holes for aft cap using DT 8215 Open holes to 0.208". Debur

8-Drill pilot holes for Tow ring using DT8091, open to .640" and Debur

AWM  
8-7-15

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 40377A

Part Number: D205634041

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

QC10

VISUAL INSPECTION OF GROUND WELDS



Comment: VISUAL INSPECTION OF GROUND WELDS

S 08/07/16 (X)

14.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 08/07/16 (X)

15.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Pressure wash as per QSI 005

M: 08/07/17 (IX)

16.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

START TIME:

1:00pm

OVEN TEMPERATURE:

320°C

FINISH TIME:

1:30pm

U

08-07-17

(X)

17.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

BK 08-07-21 (1)

18.0

D2855

Cap



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Cap

Batch:

B39562

BK

19.0

AN35A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Bolt

Batch:

M100188

BK

BK 08-07-21 (1)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 08/07/2008 2:11:48 PM  
User: Julie Lecocq

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 40377A

Part Number: D205634041

Job Number:



Seq. #:	Machine Or Operation:	Description :
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20.0	AN960JD10L	Washer
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Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Washer

Batch: M104385

BL

21.0	ALS71032130	Insert
------	-------------	--------



Comment: Qty.: 50.0000 Each(s)/Unit Total: 50.0000 Each(s)

Insert

Batch: M105819

BL

22.0	AN3C4A	BOLT
------	--------	------



Comment: Qty.: 50.0000 Each(s)/Unit Total: 50.0000 Each(s)

BOLT

Batch: M108558

BL

23.0	AN960C10L	washer
------	-----------	--------



Comment: Qty.: 50.0000 Each(s)/Unit Total: 50.0000 Each(s)

washer

Batch: M188077

BL

24.0	D356613	Gasket
------	---------	--------



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

GASKET

Batch: B39574

BL

25.0	D35665	Gasket
------	--------	--------



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

GASKET

Batch: B39998

BL

26.0	D35661	Gasket
------	--------	--------



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

GASKET

Batch: B40290

BL

BL 08-07-21 ①

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries

Date: Tuesday, 08/07/2008 2:11:48 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 40377A

Part Number: D205634041

Job Number:



Seq. #:

Machine Or Operation:

Description :

27.0

D356413

Wearshoe



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

WEARSHOE

Batch: B39791

BR

28.0

D356411

Wearshoe



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

WEARSHOE

Batch: B16191

BR

29.0

D35649

Wearshoe



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

WEARSHOE

Batch: B39792

BR

30.0

D35645

Wearshoe



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

WEARSHOE

Batch: 39573

BR

31.0

D25943

O-Ring, 205 Skidtube



Comment: Qty.: 16.0000 Each(s)/Unit Total: 16.0000 Each(s)

O-Ring

Batch: B29908

BR

32.0

D25941

Plug, 205 Skidtube



Comment: Qty.: 16.0000 Each(s)/Unit Total: 16.0000 Each(s)

Plug

Batch: B16396

BR

33.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

1-Install inserts & wearplates & Gaskets as per Dwg. D2580. Use a drop of Sikaflex on insert holes before installing wearplates

A/R

Sikaflex-291

M107804

BR 08-07-2008



W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Date: Tuesday, 08/07/2008 2:11:48 PM  
User: Julie Lecocq

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 40377A

Part Number: D205634041

Job Number:



Seq. #:

Machine Or Operation:

Description :

Sikaflex expire date: 08-10

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with Sikaflex. Clean excess adhesive

A/R Sikaflex-291

Sikaflex expire date: 08-10

5-Wing Walk as per Dwg D2580 and QSI 005 4.4

Batch: M108496

BR 08-07-21

BR 08-07-22

BR 08-07-22

34.0

QC5

INSPECT WORK TO CURRENT STEP



08/07/22 @

Comment: Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024

35.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D205-634-041

Location:

PPP Rev:

REV H PPP 40377

SS 08/08/12

36.0

QC21

FINAL INSPECTION/W/O RELEASE



1

Comment: FINAL INSPECTION/W/O RELEASE

08/08/12

Job Completion



MF 08-08-12

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries



DESIGN #	DRAWN BY RH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D2580	REV. D SHEET 1 OF 3
DATE 07.02.27		TITLE 205 SKIDTUBE ASSEMBLY	SCALE NTS
A	96.09.16	NEW ISSUE	
B	96.12.02	AS MANUFACTURED	
C	98.08.26	REDRAWN, INCLUDED DEO 9094/9097	
D	07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183	

RELEASED  
07.06.28 #

QTY -041	QTY -045	Part Number	Description
X		D2580-041	SKIDTUBE ASSEMBLY
	X	D2580-045	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

**GENERAL NOTES:**

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL  $\varnothing 0.297$  HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241. SUBJECT TO AMENDMENT 291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:  
SEE NOTES ON  
PAGE 2 FOR D2580-041 AND  
PAGE 3 FOR D2580-045
- 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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NO. 1102

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barday Elliot  
Job number: 840144A  
Part number: D205 634 041  
Description: 205 skirt tube  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminium  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[ ]  
Penetration: pass[☒] fail[ ]

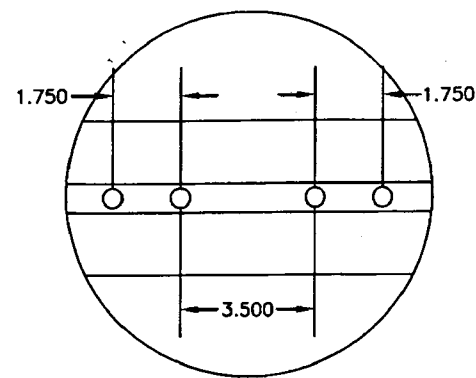
UNACCEPTABLE

Cracks: pass[☒] fail[ ]  
Undercut: pass[☒] fail[ ]  
Pin holes: pass[☒] fail[ ]  
Overlap (cold lap): pass[☒] fail[ ]  
Porosity (surface): pass[☒] fail[ ]  
Coloration: pass[☒] fail[ ]

Qualifier Pat. Dwyer Date of Test Coupon 08-07-11  
Welder Barday Elliot Date of Test Coupon 08-07-11

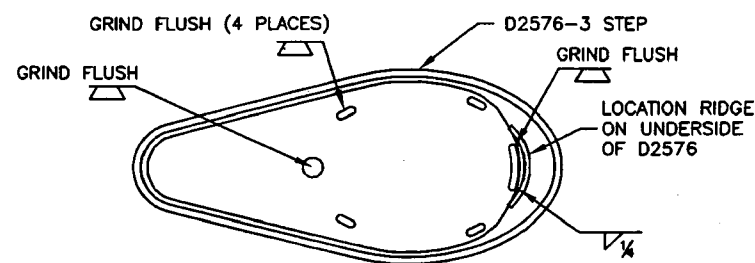
The above named individual is qualified in accordance with AWS D17.1.2001 to weld

**DETAIL E**  
SCALE 5:24

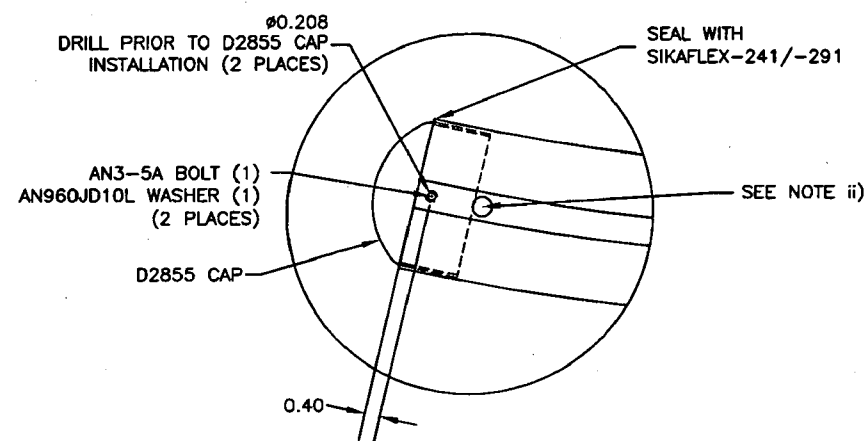


**RELEASED**  
07 Dec 88

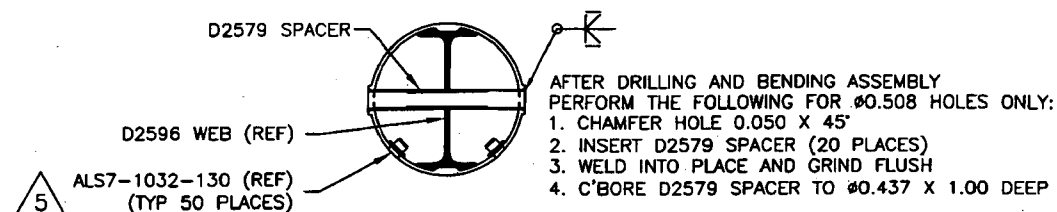
**DETAIL F**  
SCALE 5:24



**DETAIL G**  
SCALE 5:24



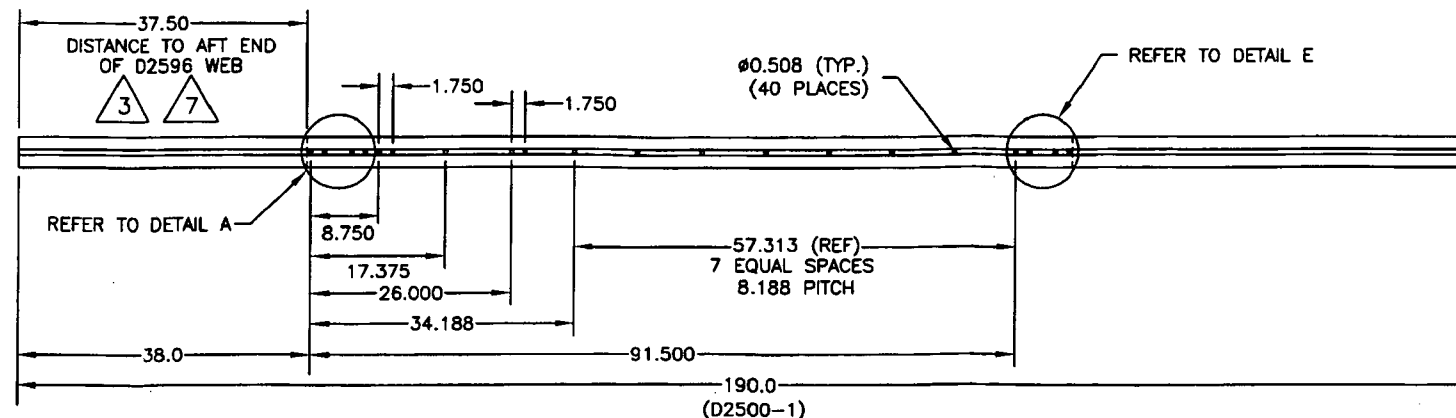
**SECTION H-H**  
SCALE 5:24



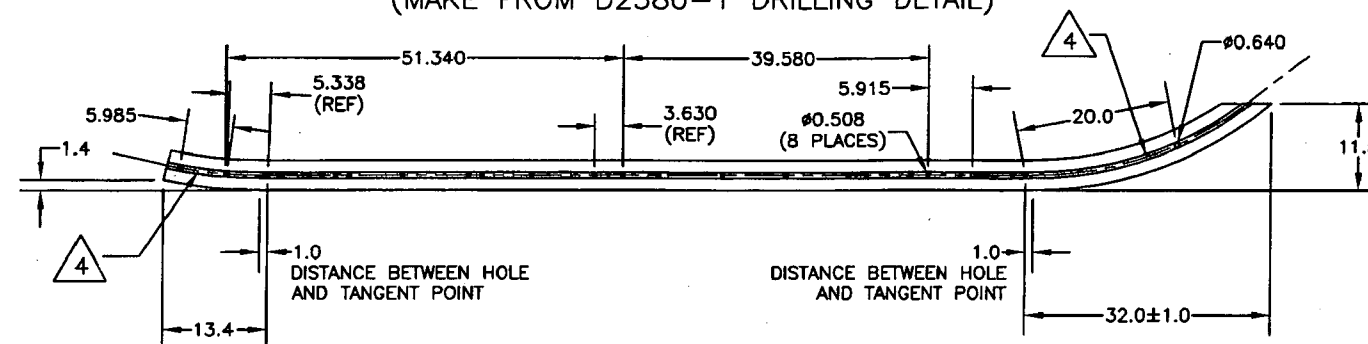
**D2580-045 NOTES**

- i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4
- ii) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE WITH THE SPACER AT THIS LOCATION

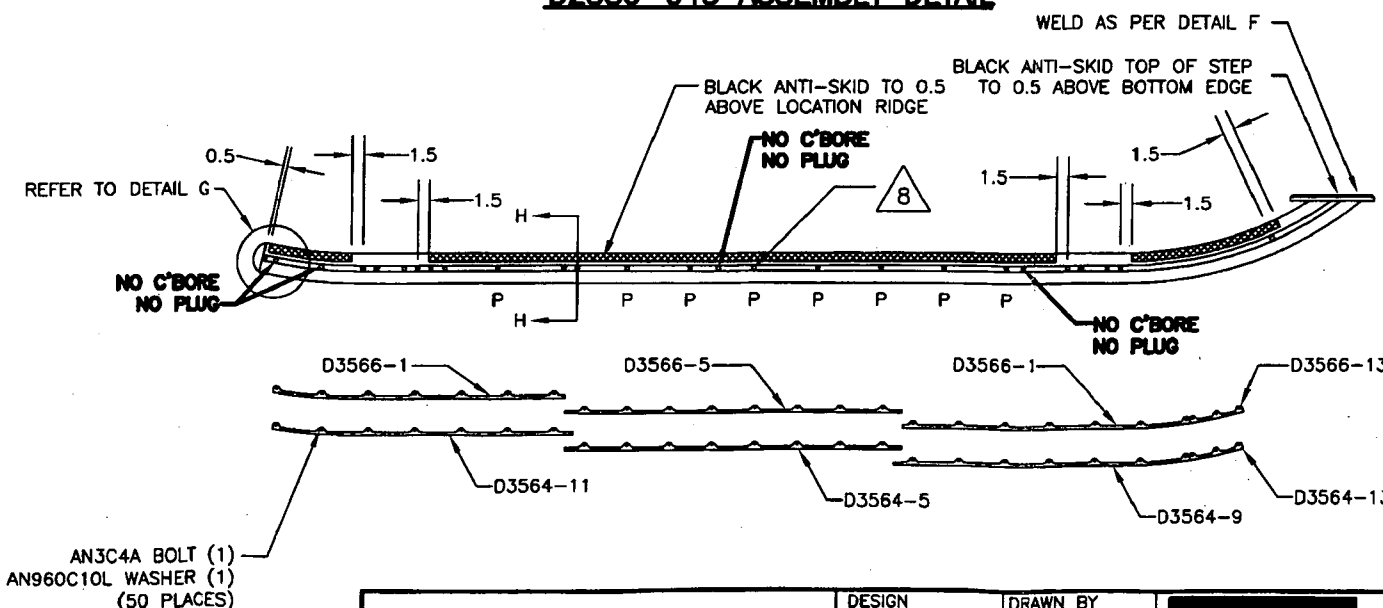
**D2580-1 DRILLING DETAIL**



**D2580-5 BENDING AND CUTTING DETAIL**  
(MAKE FROM D2580-1 DRILLING DETAIL)



**D2580-045 ASSEMBLY DETAIL**



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DESIGN RH	DRAWN BY RH	<b>DART</b>	DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA
CHECKED H	APPROVED H	DRAWING NO. D2580	REV. D SHEET 3 OF 3
DATE 07.02.27	TITLE 205 SKIDTUBE ASSEMBLY	SCALE 1:24	



RELEASED  
07-06-28

Diagram illustrating the grinding locations for the D2576-3 STEP. The diagram shows a cross-section of the component with the following labels and features:

- GRIND FLUSH (4 PLACES)**: Indicated by four small circles on the inner surface of the component.
- GRIND FLUSH**: Indicated by a small circle on the outer surface of the component.
- D2576-3 STEP**: The main body of the component.
- LOCATION RIDGE ON UNDERSIDE OF D2576**: A ridge on the bottom surface of the component.
- GRIND FLUSH**: Indicated by a small circle on the bottom surface of the component.
- 1/4**: A dimension line indicating a quarter-inch measurement.

Diagram illustrating the installation of the D2855 cap on the rear of the engine. The cap is secured with an AN3-5A bolt (1) and an AN960JD10L washer (1) (2 PLACES). The cap is sealed with SIKAFLEX-241/-29. The diagram also shows the location of the cap and the required drilling prior to installation (2 PLACES). A dimension of 0.40 is indicated for the cap's thickness.

5

D2579 SPACER

D2596 WEB (REF)

ALS7-1032-130 (REF)  
(TYP 50 PLACES)

AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP

i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4






Diagram illustrating the elevation view of the bottom flange of a girder, showing stiffener locations and dimensions.

Key dimensions and features:

- Distance to aft end of D2596 web: 37.50
- Stiffener locations: 3 and 7
- Stiffener diameter:  $\varnothing 0.508$  (TYP.) (40 PLACES)
- Reference to Detail A: Two locations are indicated.
- Stiffener spacing: 1.750 (between stiffeners 3 and 7)
- Stiffener pitch: 8.188 (7 EQUAL SPACES)
- Stiffener pitch (REF): 57.313 (REF)
- Stiffener pitch (7 EQUAL SPACES): 8.188 PITCH
- Stiffener pitch (26.000)
- Stiffener pitch (34.188)
- Stiffener pitch (91.500)
- Stiffener pitch (190.0 (D2500-1))
- Stiffener pitch (38.0)
- Stiffener pitch (8.750)
- Stiffener pitch (17.375)

[illegible]

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